

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

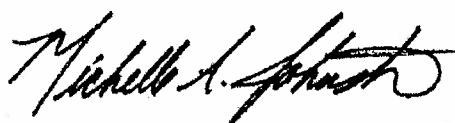
ANALYTICAL REPORT

Job Number: 280-4611-1

Job Description: Dalton PFC Analysis

For:
Dalton Utilities
1200 V.D. Parrott Jr. Parkway
Dalton, GA 30721

Attention: Ms. Dena Haverland



Approved for release.
Michelle Johnston
Project Manager I
7/13/2010 12:42 PM

2010 AUG -2 P 2:03

Michelle Johnston
Project Manager I
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07/13/2010

The test results in this report relate only to the samples in this report and meet all requirements of NELAC, with any exceptions noted. Pursuant to NELAP, this report shall not be reproduced except in full, without the written approval of the laboratory. All questions regarding this report should be directed to the TestAmerica Denver Project Manager.

The Lab Certification ID# is E87667.

Reporting limits are adjusted for sample size used, dilutions and moisture content if applicable.

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Table of Contents

Cover Title Page	1
Data Summaries	4
Report Narrative	4
Manual Integration Summary	5
Sample Summary	9
Executive Summary	10
Method Summary	13
Method / Analyst Summary	14
Sample Datasheets	15
Surrogate Summary	27
QC Data Summary	28
Data Qualifiers	33
QC Association Summary	34
Lab Chronicle	35
Organic Sample Data	37
LCMS	37
Method PFC	37
Method PFC QC Summary	38
Method PFC Sample Data	47
Standards Data	96
Method PFC ICAL Data	96
Method PFC CCAL Data	161
Raw QC Data	197
Method PFC Blank Data	197
Method PFC LCS/LCSD Data	218
Method PFC MS/MSD Data	227

Table of Contents

Method PFC Run Logs	245
Method PFC Prep Data	248
Inorganic Sample Data	250
General Chemistry Data	250
Gen Chem Cover Page	251
Gen Chem MDL	252
Gen Chem Analysis Run Log	253
Gen Chem Raw Data	255
Gen Chem Prep Data	256
Shipping and Receiving Documents	260
Client Chain of Custody	261
Sample Receipt Checklist	262

CASE NARRATIVE
Client: Dalton Utilities
Project: PFC Analysis
Report Number: 280-4611-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

Receipt

The following report contains the analytical results for six soil samples received at TestAmerica Denver on June 18, 2010, according to documented sample acceptance procedures. The samples were received in good condition at a temperature of 18.2°C.

The samples were received above the recommended temperature of 4 +/- 2°C. The client was notified on June 18, 2010.

No other anomalies were encountered during sample receipt.

PFC

Samples AA2 18 MONTH (280-4611-1), AB5 12 MONTH (280-4611-2), AB13 6 MONTH (280-4611-3), AA2 18 MONTH (280-4611-4), AB5 12 MONTH (280-4611-5) and AB13 6 MONTH (280-4611-6) were analyzed for PFC in accordance with SOP DV-LC-0012. The samples were prepared on 06/25/2010 and analyzed on 06/30/2010 and 07/07/2010.

Each sample is analyzed to achieve the lowest possible reporting limits within the constraints of the method. Due to high concentrations of target analytes, samples AA2 18 MONTH (280-4611-1), AB5 12 MONTH (280-4611-2), AB13 6 MONTH (280-4611-3), AA2 18 MONTH (280-4611-4), AB5 12 MONTH (280-4611-5) and AB13 6 MONTH (280-4611-6) had to be analyzed at dilutions. The reporting limits have been adjusted relative to the dilutions required.

Surrogate recoveries could not be accurately calculated for the diluted analyses of samples AA2 18 MONTH (280-4611-1), AB5 12 MONTH (280-4611-2), AB13 6 MONTH (280-4611-3), AA2 18 MONTH (280-4611-4), AB5 12 MONTH (280-4611-5) and AB13 6 MONTH (280-4611-6) because the extracts were diluted beyond the ability to quantitate recoveries.

The MS/MSD analyses performed on sample AA2 18 MONTH (280-4611-1) associated with prep batch 280-20654 exhibited spike compound recoveries and/or relative percent difference (RPD) data outside the control limits for several compounds. Please note the MS/MSD were analyzed at 20X dilutions. The presence of the '4' qualifier in the report indicates analytes where the concentration in the unspiked sample exceeded four times the spiking amount. The acceptable LCS analysis data indicated that the analytical system was operating within control; therefore, corrective action is deemed unnecessary.

Refer to the QC report for details.

No other difficulties were encountered during the PFC analyses.

All other quality control parameters were within the acceptance limits.

Percent Solids

Samples AA2 18 MONTH (280-4611-1), AB5 12 MONTH (280-4611-2), AB13 6 MONTH (280-4611-3), AA2 18 MONTH (280-4611-4), AB5 12 MONTH (280-4611-5) and AB13 6 MONTH (280-4611-6) were analyzed for percent solids in accordance with EPA SW846 3550C. The samples were analyzed on 06/21/2010.

No difficulties were encountered during the % solids analyses.

All quality control parameters were within the acceptance limits.

LCMS MANUAL INTEGRATION SUMMARY

142

Lab Name:	TestAmerica Denver	SDG No.:	Job No.:	280-4611-1
Instrument ID:	LC LCMS5	Analysis Batch Number:	20928	
Lab Sample ID:	STD002 280-20928/2 IC	Client Sample ID:		S. Chastay
Date Analyzed:	06/28/10 13:26	Lab File ID:	pc50F28b004.d	ID: 7-12-10
COMPOUND NAME	RETENTION TIME	REASON	MANUAL INTEGRATION	
Perfluoropentanoic acid (PFPA)	5.31	Baseline	ANALYST	DATE
Perfluorobutane Sulfonate (PFBS)	5.43	Baseline	williamst	06/29/10 08:13
MeFOSA (Surr)	7.13	Baseline	williamst	06/29/10 08:25
			williamst	06/29/10 08:13

LCMS MANUAL INTEGRATION SUMMARY

10 29/22

Lab Name:	TestAmerica Denver	Job No.:	280-4611-1
SDG No.:			
Instrument ID:	LC_LCMS5	Analysis Batch Number:	21148
Lab Sample ID:	MB 280-20654/1-A	Client Sample ID:	
Date Analyzed:	06/29/10 23:06	Lab File ID:	pc50F29023.d
		GC Column:	Gemini-NX
		ID:	

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Perfluorotetradecanoic acid (PFTeA)	7.79	Baseline	williams	06/30/10 17:13

LCMS MANUAL INTEGRATION SUMMARY

Lab Name:	TestAmerica Denver	Job No.:	280-4611-1
SDG No.:			
Instrument ID:	LC LCMS5	Analysis Batch Number:	20928
Lab Sample ID:	STD002 280-20928/2 IC	Client Sample ID:	
Date Analyzed:	06/28/10 13:26	Lab File ID:	pc50F28b004.d
GC Column:	Gemini-NX	ID:	
COMPOUND NAME	RETENTION TIME	REASON	MANUAL INTEGRATION
Perfluoropentanoic acid (PFPA)	5.31	Baseline	ANALYST DATE
Perfluorobutane Sulfonate (PFBS)	5.43	Baseline	williamst 06/29/10 08:13
MeFOSA (Surr)	7.13	Baseline	williamst 06/29/10 08:25
			williamst 06/29/10 08:13

LCMS MANUAL INTEGRATION SUMMARY

Lab Name:	TestAmerica Denver	Job No.:	280-4611-1													
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Lab Sample ID:	MB 280-20654/1-A	Client Sample ID:														
Date Analyzed:	06/29/10 23:06	Lab File ID:	pc50F29023.d													
<table border="1"><thead><tr><th rowspan="2">COMPOUND NAME</th><th rowspan="2">RETENTION TIME</th><th colspan="3">MANUAL INTEGRATION</th></tr><tr><th>REASON</th><th>ANALYST</th><th>DATE</th></tr></thead><tbody><tr><td>Perfluorotetradecanoic acid (PFTeA)</td><td>7.79</td><td>Baseline</td><td>Williamst</td><td>06/30/10 17:13</td></tr></tbody></table>				COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION			REASON	ANALYST	DATE	Perfluorotetradecanoic acid (PFTeA)	7.79	Baseline	Williamst	06/30/10 17:13
COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION														
		REASON	ANALYST	DATE												
Perfluorotetradecanoic acid (PFTeA)	7.79	Baseline	Williamst	06/30/10 17:13												

SAMPLE SUMMARY

Client: Dalton Utilities

Job Number: 280-4611-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
280-4611-1	AA2 18 MONTH	Solid	06/17/2010 1035	06/18/2010 1000
280-4611-2	AB5 12 MONTH	Solid	06/17/2010 1043	06/18/2010 1000
280-4611-3	AB13 6 MONTH	Solid	06/17/2010 1048	06/18/2010 1000
280-4611-4	AA2 18 MONTH	Solid	06/17/2010 1035	06/18/2010 1000
280-4611-5	AB5 12 MONTH	Solid	06/17/2010 1043	06/18/2010 1000
280-4611-6	AB13 6 MONTH	Solid	06/17/2010 1048	06/18/2010 1000

EXECUTIVE SUMMARY - Detections

Client: Dalton Utilities

Job Number: 280-4611-1

Lab Sample ID	Client Sample ID		Reporting		
Analyte		Result / Qualifier	Limit	Units	Method
280-4611-1 AA2 18 MONTH					
Perfluorobutane Sulfonate (PFBS)	300		64	ug/Kg	DV-LC-0012
Perfluorobutanioc acid (PFBA)	34	J	64	ug/Kg	DV-LC-0012
Perfluorodecanoic acid (PFDA)	1400		64	ug/Kg	DV-LC-0012
Perfluorododecanoic acid (PFDoA)	260		160	ug/Kg	DV-LC-0012
Perfluoroheptanoic acid (PFHpA)	170		64	ug/Kg	DV-LC-0012
Perfluorohexanoic acid (PFHxA)	140		64	ug/Kg	DV-LC-0012
Perfluorononanoic acid (PFNA)	280		64	ug/Kg	DV-LC-0012
Perfluoroctane Sulfonamide (FOSA)	1000		160	ug/Kg	DV-LC-0012
Perfluoroctanoic acid (PFOA)	1000		160	ug/Kg	DV-LC-0012
Perfluoroctane Sulfonate (PFOS)	640		64	ug/Kg	DV-LC-0012
Perfluoropentanoic acid (PFPA)	140		64	ug/Kg	DV-LC-0012
Perfluorotetradecanoic acid (PFTeA)	84	J	160	ug/Kg	DV-LC-0012
Perfluorotridecanoic Acid (PFTriA)	210		160	ug/Kg	DV-LC-0012
Perfluoroundecanoic acid (PFUnA)	540		160	ug/Kg	DV-LC-0012
Percent Moisture	39		0.10	%	D-2216
280-4611-2 AB5 12 MONTH					
Perfluorobutane Sulfonate (PFBS)	670		35	ug/Kg	DV-LC-0012
Perfluorobutanioc acid (PFBA)	66		35	ug/Kg	DV-LC-0012
Perfluorodecanoic acid (PFDA)	1600		35	ug/Kg	DV-LC-0012
Perfluorododecanoic acid (PFDoA)	350		88	ug/Kg	DV-LC-0012
Perfluoroheptanoic acid (PFHpA)	190		35	ug/Kg	DV-LC-0012
Perfluorohexanoic acid (PFHxA)	140		35	ug/Kg	DV-LC-0012
Perfluorononanoic acid (PFNA)	340		35	ug/Kg	DV-LC-0012
Perfluoroctane Sulfonamide (FOSA)	1000		88	ug/Kg	DV-LC-0012
Perfluoroctanoic acid (PFOA)	1300		88	ug/Kg	DV-LC-0012
Perfluoroctane Sulfonate (PFOS)	670		35	ug/Kg	DV-LC-0012
Perfluoropentanoic acid (PFPA)	140		35	ug/Kg	DV-LC-0012
Perfluorotetradecanoic acid (PFTeA)	81	J	88	ug/Kg	DV-LC-0012
Perfluorotridecanoic Acid (PFTriA)	260		88	ug/Kg	DV-LC-0012
Perfluoroundecanoic acid (PFUnA)	740		88	ug/Kg	DV-LC-0012
Percent Moisture	43		0.10	%	D-2216

EXECUTIVE SUMMARY - Detections

Client: Dalton Utilities

Job Number: 280-4611-1

Lab Sample ID	Client Sample ID		Reporting Limit	Units	Method
Analyte		Result / Qualifier			
280-4611-3	AB13 6 MONTH				
Perfluorobutane Sulfonate (PFBS)	1200		47	ug/Kg	DV-LC-0012
Perfluorobutanioc acid (PFBA)	170		47	ug/Kg	DV-LC-0012
Perfluorodecanoic acid (PFDA)	1900		47	ug/Kg	DV-LC-0012
Perfluorododecanoic acid (PFDa)	350		120	ug/Kg	DV-LC-0012
Perfluoroheptanoic acid (PFHpA)	250		47	ug/Kg	DV-LC-0012
Perfluorohexanoic acid (PFHxA)	350		47	ug/Kg	DV-LC-0012
Perfluorononanoic acid (PFNA)	380		47	ug/Kg	DV-LC-0012
Perfluoroctane Sulfonamide (FOSA)	430		120	ug/Kg	DV-LC-0012
Perfluoroctanoic acid (PFOA)	1800		120	ug/Kg	DV-LC-0012
Perfluoroctane Sulfonate (PFOS)	540		47	ug/Kg	DV-LC-0012
Perfluoropentanoic acid (PFPA)	250		47	ug/Kg	DV-LC-0012
Perfluorotetradecanoic acid (PFTeA)	85	J	120	ug/Kg	DV-LC-0012
Perfluorotridecanoic Acid (PFTriA)	340		120	ug/Kg	DV-LC-0012
Perfluoroundecanoic acid (PFUnA)	830		120	ug/Kg	DV-LC-0012
Percent Moisture	58		0.10	%	D-2216
280-4611-4	AA2 18 MONTH				
Perfluorobutane Sulfonate (PFBS)	300		66	ug/Kg	DV-LC-0012
Perfluorobutanioc acid (PFBA)	45	J	66	ug/Kg	DV-LC-0012
Perfluorodecanoic acid (PFDA)	1400		66	ug/Kg	DV-LC-0012
Perfluorododecanoic acid (PFDa)	310		170	ug/Kg	DV-LC-0012
Perfluoroheptanoic acid (PFHpA)	170		66	ug/Kg	DV-LC-0012
Perfluorohexanoic acid (PFHxA)	130		66	ug/Kg	DV-LC-0012
Perfluorononanoic acid (PFNA)	300		66	ug/Kg	DV-LC-0012
Perfluoroctane Sulfonamide (FOSA)	1600		170	ug/Kg	DV-LC-0012
Perfluoroctanoic acid (PFOA)	1100		170	ug/Kg	DV-LC-0012
Perfluoroctane Sulfonate (PFOS)	1200		66	ug/Kg	DV-LC-0012
Perfluoropentanoic acid (PFPA)	140		66	ug/Kg	DV-LC-0012
Perfluorotetradecanoic acid (PFTeA)	75	J	170	ug/Kg	DV-LC-0012
Perfluorotridecanoic Acid (PFTriA)	230		170	ug/Kg	DV-LC-0012
Perfluoroundecanoic acid (PFUnA)	600		170	ug/Kg	DV-LC-0012
Percent Moisture	40		0.10	%	D-2216

EXECUTIVE SUMMARY - Detections

Client: Dalton Utilities

Job Number: 280-4611-1

Lab Sample ID	Client Sample ID		Reporting Limit	Units	Method
Analyte		Result / Qualifier			
280-4611-5 AB5 12 MONTH					
Perfluorobutane Sulfonate (PFBS)	670		32	ug/Kg	DV-LC-0012
Perfluorobutanioc acid (PFBA)	69		32	ug/Kg	DV-LC-0012
Perfluorodecanoic acid (PFDA)	1600		32	ug/Kg	DV-LC-0012
Perfluorododecanoic acid (PFDoA)	330		81	ug/Kg	DV-LC-0012
Perfluoroheptanoic acid (PFHpA)	210		32	ug/Kg	DV-LC-0012
Perfluorohexanoic acid (PFHxA)	140		32	ug/Kg	DV-LC-0012
Perfluorononanoic acid (PFNA)	340		32	ug/Kg	DV-LC-0012
Perfluorooctane Sulfonamide (FOSA)	730		81	ug/Kg	DV-LC-0012
Perfluorooctanoic acid (PFOA)	1400		81	ug/Kg	DV-LC-0012
Perfluorooctane Sulfonate (PFOS)	680		32	ug/Kg	DV-LC-0012
Perfluoropentanoic acid (PFPA)	130		32	ug/Kg	DV-LC-0012
Perfluorotetradecanoic acid (PFTeA)	63	J	81	ug/Kg	DV-LC-0012
Perfluorotridecanoic Acid (PFTriA)	230		81	ug/Kg	DV-LC-0012
Perfluoroundecanoic acid (PFUnA)	720		81	ug/Kg	DV-LC-0012
Percent Moisture	40		0.10	%	D-2216
280-4611-6 AB13 6 MONTH					
Perfluorobutane Sulfonate (PFBS)	780		47	ug/Kg	DV-LC-0012
Perfluorobutanioc acid (PFBA)	85		47	ug/Kg	DV-LC-0012
Perfluorodecanoic acid (PFDA)	1500		47	ug/Kg	DV-LC-0012
Perfluorododecanoic acid (PFDoA)	320		120	ug/Kg	DV-LC-0012
Perfluoroheptanoic acid (PFHpA)	200		47	ug/Kg	DV-LC-0012
Perfluorohexanoic acid (PFHxA)	270		47	ug/Kg	DV-LC-0012
Perfluorononanoic acid (PFNA)	310		47	ug/Kg	DV-LC-0012
Perfluorooctane Sulfonamide (FOSA)	860		120	ug/Kg	DV-LC-0012
Perfluorooctanoic acid (PFOA)	1300		120	ug/Kg	DV-LC-0012
Perfluorooctane Sulfonate (PFOS)	760		47	ug/Kg	DV-LC-0012
Perfluoropentanoic acid (PFPA)	170		47	ug/Kg	DV-LC-0012
Perfluorotetradecanoic acid (PFTeA)	97	J	120	ug/Kg	DV-LC-0012
Perfluorotridecanoic Acid (PFTriA)	350		120	ug/Kg	DV-LC-0012
Perfluoroundecanoic acid (PFUnA)	740		120	ug/Kg	DV-LC-0012
Percent Moisture	58		0.10	%	D-2216

METHOD SUMMARY



Client: Dalton Utilities

Job Number: 280-4611-1

Description	Lab Location	Method	Preparation Method
Matrix: Solid			
Perfluorinated Hydrocarbons Leaching procedure for PFCs	TAL DEN TAL DEN	TAL-DEN DV-LC-0012 TAL-DEN PFC leach	
ASTM D-2216	TAL DEN	ASTM D-2216	

Lab References:

TAL DEN = TestAmerica Denver

Method References:

ASTM = ASTM International

TAL-DEN = TestAmerica Laboratories, Denver, Facility Standard Operating Procedure.

METHOD / ANALYST SUMMARY

Client: Dalton Utilities

Job Number: 280-4611-1

Method	Analyst	Analyst ID
TAL-DEN DV-LC-0012	Williams, Teresa L	TLW
ASTM D-2216	Ly, Tam M	TML

Analytical Data

Client: Dalton Utilities

Job Number: 280-4611-1

Client Sample ID: AA2 18 MONTH

Lab Sample ID: 280-4611-1

Date Sampled: 06/17/2010 1035

Client Matrix: Solid

% Moisture: 39.0

Date Received: 06/18/2010 1000

DV-LC-0012 Perfluorinated Hydrocarbons

Method:	DV-LC-0012	Analysis Batch:	280-22000	Instrument ID:	LC_LCMS5
Preparation:	PFC leach	Prep Batch:	280-20654	Lab File ID:	pc50G07028.d
Dilution:	20			Initial Weight/Volume:	10.3 g
Date Analyzed:	07/07/2010 1444			Final Weight/Volume:	50 mL
Date Prepared:	06/25/2010 0920			Injection Volume:	30 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Perfluorobutane Sulfonate (PFBS)	300			27	64
Perfluorobutanoic acid (PFBA)	34	J		11	64
Perfluorodecanoic acid (PFDA)	1400			24	64
Perfluorododecanoic acid (PFDaA)	260			26	160
Perfluoroheptanoic acid (PFHpA)	170			23	64
Perfluorohexane Sulfonate (PFHxS)	ND			25	64
Perfluorohexanoic acid (PFHxA)	140			6.4	64
Perfluorononanoic acid (PFNA)	280			16	64
Perfluorooctane Sulfonamide (FOSA)	1000			39	160
Perfluorooctanoic acid (PFOA)	1000			32	160
Perfluorooctane Sulfonate (PFOS)	640			12	64
Perfluoropentanoic acid (PFPA)	140			28	64
Perfluorotetradecanoic acid (PFTeA)	84	J		46	160
Perfluorotridecanoic Acid (PFTriA)	210			37	160
Perfluoroundecanoic acid (PFUnA)	540			58	160

Surrogate	%Rec	Qualifier	Acceptance Limits
13C8 PFOA	74	D	57 - 153
13C8 PFOS	70	D	70 - 130

Analytical Data

Client: Dalton Utilities

Job Number: 280-4611-1

Client Sample ID: AB5 12 MONTH

Lab Sample ID: 280-4611-2

Date Sampled: 06/17/2010 1043

Client Matrix: Solid

% Moisture: 42.9

Date Received: 06/18/2010 1000

DV-LC-0012 Perfluorinated Hydrocarbons

Method:	DV-LC-0012	Analysis Batch: 280-21148	Instrument ID:	LC_LCMS5
Preparation:	PFC leach	Prep Batch: 280-20654	Lab File ID:	pc50F29028.d
Dilution:	10		Initial Weight/Volume:	10.0 g
Date Analyzed:	06/30/2010 0010		Final Weight/Volume:	50 mL
Date Prepared:	06/25/2010 0920		Injection Volume:	30 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Perfluorobutane Sulfonate (PFBS)		670		15	35
Perfluorobutanoic acid (PFBA)		66		6.0	35
Perfluorodecanoic acid (PFDA)		1600		13	35
Perfluorododecanoic acid (PFDoA)		350		14	88
Perfluoroheptanoic acid (PFHpA)		190		13	35
Perfluorohexane Sulfonate (PFHxS)		ND		14	35
Perfluorohexanoic acid (PFHxA)		140		3.5	35
Perfluorononanoic acid (PFNA)		340		8.8	35
Perfluooctane Sulfonamide (FOSA)		1000		22	88
Perfluooctanoic acid (PFOA)		1300		18	88
Perfluooctane Sulfonate (PFOS)		670		6.6	35
Perfluoropentanoic acid (PFPA)		140		15	35
Perfluorotetradecanoic acid (PFTeA)		81	J	25	88
Perfluorotridecanoic Acid (PFTriA)		260		20	88
Perfluoroundecanoic acid (PFUnA)		740		32	88
Surrogate		%Rec	Qualifier	Acceptance Limits	
13C8 PFOA		91	D	57 - 153	
13C8 PFOS		77	D	70 - 130	

Analytical Data

Client: Dalton Utilities

Job Number: 280-4611-1

Client Sample ID: AB13 6 MONTH

Lab Sample ID: 280-4611-3

Date Sampled: 06/17/2010 1048

Client Matrix: Solid

% Moisture: 58.1

Date Received: 06/18/2010 1000

DV-LC-0012 Perfluorinated Hydrocarbons

Method:	DV-LC-0012	Analysis Batch: 280-21148	Instrument ID:	LC_LCMS5
Preparation:	PFC leach	Prep Batch: 280-20654	Lab File ID:	pc50F29029.d
Dilution:	10		Initial Weight/Volume:	10.2 g
Date Analyzed:	06/30/2010 0023		Final Weight/Volume:	50 mL
Date Prepared:	06/25/2010 0920		Injection Volume:	30 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Perfluorobutane Sulfonate (PFBS)		1200		20	47
Perfluorobutanioc acid (PFBA)		170		8.0	47
Perfluorodecanoic acid (PFDA)		1900		18	47
Perfluorododecanoic acid (PFDoA)		350		19	120
Perfluoroheptanoic acid (PFHpA)		250		17	47
Perfluorohexane Sulfonate (PFHxS)		ND		18	47
Perfluorohexanoic acid (PFHxA)		350		4.7	47
Perfluorononanoic acid (PFNA)		380		12	47
Perfluoroctane Sulfonamide (FOSA)		430		29	120
Perfluoroctanoic acid (PFOA)		1800		24	120
Perfluoroctane Sulfonate (PFOS)		540		8.8	47
Perfluoropentanoic acid (PFPA)		250		21	47
Perfluorotetradecanoic acid (PFTeA)		85	J	34	120
Perfluorotridecanoic Acid (PFTriA)		340		27	120
Perfluoroundecanoic acid (PFUnA)		830		42	120
Surrogate		%Rec	Qualifier	Acceptance Limits	
13C8 PFOA		127	D	57 - 153	
13C8 PFOS		136	D X	70 - 130	

Analytical Data

Client: Dalton Utilities

Job Number: 280-4611-1

Client Sample ID: AA2 18 MONTH

Lab Sample ID: 280-4611-4

Date Sampled: 06/17/2010 1035

Client Matrix: Solid

% Moisture: 40.0

Date Received: 06/18/2010 1000

DV-LC-0012 Perfluorinated Hydrocarbons

Method:	DV-LC-0012	Analysis Batch: 280-22000	Instrument ID:	LC_LCMS5
Preparation:	PFC leach	Prep Batch: 280-20654	Lab File ID:	pc50G07031.d
Dilution:	20		Initial Weight/Volume:	10.1 g
Date Analyzed:	07/07/2010 1522		Final Weight/Volume:	50 mL
Date Prepared:	06/25/2010 0920		Injection Volume:	30 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Perfluorobutane Sulfonate (PFBS)	300			28	66
Perfluorobutanioc acid (PFBA)	45	J		11	66
Perfluorodecanoic acid (PFDA)	1400			25	66
Perfluorododecanoic acid (PFDa)	310			27	170
Perfluoroheptanoic acid (PFHpA)	170			24	66
Perfluorohexane Sulfonate (PFHxS)	ND			26	66
Perfluorohexanoic acid (PFHxA)	130			6.6	66
Perfluorononanoic acid (PFNA)	300			17	66
Perfluoroctane Sulfonamide (FOSA)	1600			41	170
Perfluoroctanoic acid (PFOA)	1100			33	170
Perfluoroctane Sulfonate (PFOS)	1200			12	66
Perfluoropentanoic acid (PFPA)	140			29	66
Perfluorotetradecanoic acid (PFTeA)	75	J		48	170
Perfluorotridecanoic Acid (PFTriA)	230			38	170
Perfluoroundecanoic acid (PFUnA)	600			60	170

Surrogate	%Rec	Qualifier	Acceptance Limits
13C8 PFOA	77	D	57 - 153
13C8 PFOS	75	D	70 - 130

Analytical Data

Client: Dalton Utilities

Job Number: 280-4611-1

Client Sample ID: AB5 12 MONTH

Lab Sample ID: 280-4611-5

Date Sampled: 06/17/2010 1043

Client Matrix: Solid

% Moisture: 40.0

Date Received: 06/18/2010 1000

DV-LC-0012 Perfluorinated Hydrocarbons

Method:	DV-LC-0012	Analysis Batch: 280-21148	Instrument ID:	LC_LCMS5
Preparation:	PFC leach	Prep Batch: 280-20654	Lab File ID:	pc50F29031.d
Dilution:	10		Initial Weight/Volume:	10.3 g
Date Analyzed:	06/30/2010 0049		Final Weight/Volume:	50 mL
Date Prepared:	06/25/2010 0920		Injection Volume:	30 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Perfluorobutane Sulfonate (PFBS)		670		14	32
Perfluorobutanioc acid (PFBA)		69		5.5	32
Perfluorodecanoic acid (PFDA)		1600		12	32
Perfluorododecanoic acid (PFDoA)		330		13	81
Perfluoroheptanoic acid (PFHpA)		210		12	32
Perfluorohexane Sulfonate (PFHxS)		ND		13	32
Perfluorohexanoic acid (PFHxA)		140		3.3	32
Perfluorononanoic acid (PFNA)		340		8.1	32
Perfluoroctane Sulfonamide (FOSA)		730		20	81
Perfluoroctanoic acid (PFOA)		1400		16	81
Perfluoroctane Sulfonate (PFOS)		680		6.1	32
Perfluoropentanoic acid (PFPA)		130		14	32
Perfluorotetradecanoic acid (PFTeA)		63	J	23	81
Perfluorotridecanoic Acid (PFTriA)		230		19	81
Perfluoroundecanoic acid (PFUnA)		720		29	81

Surrogate	%Rec	Qualifier	Acceptance Limits
13C8 PFOA	89	D	57 - 153
13C8 PFOS	82	D	70 - 130

Analytical Data

Client: Dalton Utilities

Job Number: 280-4611-1

Client Sample ID: AB13 6 MONTH

Lab Sample ID: 280-4611-6

Date Sampled: 06/17/2010 1048

Client Matrix: Solid

% Moisture: 58.4

Date Received: 06/18/2010 1000

DV-LC-0012 Perfluorinated Hydrocarbons

Method:	DV-LC-0012	Analysis Batch: 280-21148	Instrument ID:	LC_LCMS5
Preparation:	PFC leach	Prep Batch: 280-20654	Lab File ID:	pc50F29032.d
Dilution:	10		Initial Weight/Volume:	10.2 g
Date Analyzed:	06/30/2010 0101		Final Weight/Volume:	50 mL
Date Prepared:	06/25/2010 0920		Injection Volume:	30 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Perfluorobutane Sulfonate (PFBS)		780		20	47
Perfluorobutanoic acid (PFBA)		85		8.0	47
Perfluorodecanoic acid (PFDA)		1500		18	47
Perfluorododecanoic acid (PFDoA)		320		19	120
Perfluoroheptanoic acid (PFHpA)		200		17	47
Perfluorohexane Sulfonate (PFHxS)		ND		18	47
Perfluorohexanoic acid (PFHxA)		270		4.7	47
Perfluorononanoic acid (PFNA)		310		12	47
Perfluoroctane Sulfonamide (FOSA)		860		29	120
Perfluoroctanoic acid (PFOA)		1300		24	120
Perfluoroctane Sulfonate (PFOS)		760		8.9	47
Perfluoropentanoic acid (PFPA)		170		21	47
Perfluorotetradecanoic acid (PFTeA)		97	J	34	120
Perfluorotridecanoic Acid (PFTriA)		350		27	120
Perfluoroundecanoic acid (PFUnA)		740		43	120

Surrogate	%Rec	Qualifier	Acceptance Limits
13C8 PFOA	121	D	57 - 153
13C8 PFOS	128	D	70 - 130

Analytical Data

Client: Dalton Utilities

Job Number: 280-4611-1

General Chemistry

Client Sample ID: AA2 18 MONTH

Lab Sample ID: 280-4611-1

Date Sampled: 06/17/2010 1035

Client Matrix: Solid

Date Received: 06/18/2010 1000

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	39	%		0.10	0.10	1.0	D-2216

Analysis Batch: 280-20065 Date Analyzed: 06/21/2010 1401 DryWt Corrected: N

Analytical Data

Client: Dalton Utilities

Job Number: 280-4611-1

General Chemistry

Client Sample ID: AB5 12 MONTH

Lab Sample ID: 280-4611-2 Date Sampled: 06/17/2010 1043
Client Matrix: Solid Date Received: 06/18/2010 1000

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	43	%	0.10	0.10		1.0	D-2216

Analysis Batch: 280-20065 Date Analyzed: 06/21/2010 1401 DryWt Corrected: N

Analytical Data

Client: Dalton Utilities

Job Number: 280-4611-1

General Chemistry**Client Sample ID:** AB13 6 MONTH

Lab Sample ID: 280-4611-3

Date Sampled: 06/17/2010 1048

Client Matrix: Solid

Date Received: 06/18/2010 1000

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	58	%		0.10	0.10	1.0	D-2216

Analysis Batch: 280-20065

Date Analyzed: 06/21/2010 1401

DryWt Corrected: N

Analytical Data

Client: Dalton Utilities

Job Number: 280-4611-1

General Chemistry**Client Sample ID:** AA2 18 MONTH

Lab Sample ID: 280-4611-4

Date Sampled: 06/17/2010 1035

Client Matrix: Solid

Date Received: 06/18/2010 1000

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	40	%		0.10	0.10	1.0	D-2216

Analysis Batch: 280-20065 Date Analyzed: 06/21/2010 1401 DryWt Corrected: N

Analytical Data

Client: Dalton Utilities

Job Number: 280-4611-1

General Chemistry

Client Sample ID: AB5 12 MONTH

Lab Sample ID: 280-4611-5

Date Sampled: 06/17/2010 1043

Client Matrix: Solid

Date Received: 06/18/2010 1000

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	40		%	0.10	0.10	1.0	D-2216

Analysis Batch: 280-20065 Date Analyzed: 06/21/2010 1401 DryWt Corrected: N

Analytical Data

Client: Dalton Utilities

Job Number: 280-4611-1

General Chemistry**Client Sample ID:** AB13 6 MONTH

Lab Sample ID: 280-4611-6

Date Sampled: 06/17/2010 1048

Client Matrix: Solid

Date Received: 06/18/2010 1000

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	58	%		0.10	0.10	1.0	D-2216

Analysis Batch: 280-20065 Date Analyzed: 06/21/2010 1401 DryWt Corrected: N

DATA REPORTING QUALIFIERS

Client: Dalton Utilities

Job Number: 280-4611-1

Lab Section	Qualifier	Description
LCMS		
	4	MS, MSD: The analyte present in the original sample is 4 times greater than the matrix spike concentration; therefore, control limits are not applicable.
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
	F	RPD of the MS and MSD exceeds the control limits
	D	Sample results are obtained from a dilution; the surrogate or matrix spike recoveries reported are calculated from diluted samples.
	X	Surrogate is outside control limits